District I - (505) 393-6161
PO Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV

New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-140
Originated 11/1/95

Submit Original
Plus 2 Copies
to appropriate
District Office

APPLICATION FOR QUALIFICATION OF WELL WORKOVER PROJECT AND CERTIFICATION OF APPROVAL

THREE COPIES OF THIS APPLICATION MUST BE FILED WITH THE APPROPRIATE DISTRICT OFFICE OF THE OIL CONSERVATION DIVISION.

I. Operator: Amoco Production Company OGRID #: 000778

Address: P.O. Box 800, Denver, Colorado 80201

Contact Party: Patricia J. Haefele Phone: (303) 830-4988

II. Name of Well: Barrett LS #2 API #: 3004510641

Location of Well: Unit Letter B, 790 Feet from the North line and 1750 Feet from the East line, Section 19, Township 31N, Range 9W, NMPM, San Juan County.

III. Date Workover Procedures Commenced: 11/28/95

Date Workover Procedures were Completed: 1/29/96

IV. Attach a description of the Workover Procedures undertaken to increase the projection from the Well.

V. Attach an estimate of the production rate of the Well (a production decline curve or other acceptable method, and table showing monthly oil and/or gas Project Production) based on at least twelve (12) months of established production which shows the future rate of production based on well performance prior to performing Workover.

VI. Pool(s) on which Production Projection is based:

Blanco Mesaverde

1/7/1997

VII. AFFIDAVIT:

State of Colorado)
) ss.
County of Denver)

Patricia J. Haefele, being first duly sworn, upon oath states:

1. I am the Operator or authorized representative of the Operator of the above referenced Well.
2. I have made, or caused to be made, a diligent search of the production records which are reasonably available and contain information relevant to the production history of this Well.
3. To the best of my knowledge, the data used to prepare the Production Projection for this Well is complete and accurate and this projection was prepared using sound petroleum engineering principles.

Patricia J. Haefele
(Name)
Staff Assistant
(Title)

SUBSCRIBED AND SWORN TO before me this 2nd day of October, 1996.

PATRICIA J. ARCHULETA
NOTARY PUBLIC
STATE OF COLORADO

Patricia J. Archuleta
Notary Public

My Commission expires: August 12, 1999

FOR OIL CONSERVATION DIVISION USE ONLY:

VIII. CERTIFICATION OF APPROVAL:

This Application for Qualification of Well Workover Project is hereby approved and the above referenced Well is designated as a Well Workover Project pursuant to the "Natural Gas and Crude Oil Production Incentive Act" (Laws 1995, Chapter 15, Sections 1 through 8). The Oil Conservation Division hereby verifies the Production Projection for the Well Workover Project attached to this application. By copy of this Application and Certification of Approval, the Division notifies the Secretary of the Taxation and Revenue Department of this Approval and certifies that this Well Workover Project has been completed as of 1/26, 1996.

District Supervisor, District 3
Oil Conservation Division

Date: 2/5/97

IX. DATE OF NOTIFICATION TO THE SECRETARY OF THE TAXATION AND REVENUE DEPARTMENT.

DATE: _____

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT - " for such proposals

5. Lease Designation and Serial No.
SF-078336-B

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
Barrett LS 2

2. Name of Operator
Amoco Production Company

Attention:
Patty Haefele

9. API Well No.
3004510641

3. Address and Telephone No.
P.O. Box 800, Denver, CO 80201 (303) 830-4988

10. Field and Pool, or Exploratory Area
Blanco Mesaverde

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Surface - 790' FNL 1750' FEL Sec. 19 T 31N R 9W Unit B
BHL- 1619'FNL 801'FEL

11. County or Parish, State
San Juan New Mexico

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☐ Notice of Intent	☐ Abandonment	☐ Change of Plans
☒ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☒ Other Horizontal Drill	☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Amoco Production Company has performed horizontal drilling on this well per the attached summary.

14. I hereby certify that the foregoing is true and correct

Signed Patty Haefele Title Staff Assistant Date 02-14-1996

(This space for Federal or State office use)

Approved by Title Date
Conditions of approval, if any:

SRBU
RECEIVED
MAR 11 1996
ADMINISTRATIVE OPERATOR

ACCEPTED FOR RECORD
MAR 04 1996
FARMINGTON DISTRICT OFFICE
BY

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction.

* See Instructions on Reverse Side

MIRURT 11/28/95. TOH with 2-3/8" tubing. TIH with tubing and retainer. Set cement retainer at 4115'. Pressure up on annulus to 500 psi, pressure dropped to 350 psi in 7 min. Pump 250 sx 50/50 poz, 2% gel, 3 bpm at 225 psi. Sting out of retainer and reverse out. Run casing bond log from 4115-2500', no cement behind casing. Run tubing and packer and located casing leak at 3140'. Pump 1 bpm at 1000 psi, no communication with the bradenhead. Shoot squeeze holes at 4000', set cement retainer at 3950'. Sting into retainer at 3950', establish rate at 2 bpm and 500 psi; pump 100 sx Class B, final squeeze pressure of 500 psi. Set cement retainer at 2400', shoot squeeze holes at 2150'. Sting into retainer at 2400', 1 bpm at 850 psi in hole at 3140' with 145 sx Class B, final squeeze pressure of 584 psi. Had communication with the squeeze holes at 2150', but no cement was circulated. Sting out of retainer and reverse circulation. Set cement retainer at 1990', sting into retainer at 1990', establish rate at 1.9 bpm and 800 psi into holes at 2150'; pump 150 sx Class B, final squeeze pressure of 660 psi. Had no communication through bradenhead, sting out of retainer.

Shoot squeeze holes at 650', establish rate at 1.5 bpm and 400 psi, pump 200 sx Class B, final squeeze pressure of 320 psi. Had no communication with bradenhead. Tag cement at 587'. Drill cement from 587-747', circulate hole clean. Pressure test casing to 300 psi, did not hold. Spot cement plug from 300-700' with 80 sx Class B, 2% CACL2. Bull head cement into holes at 650', squeeze .5 bbls cement into holes, pressure up to 1200 psi, hold pressure. Tag cement at 370'. Drill cement from 370-1990', pressure test casing to 300 psi, test good. Drill cement retainer from 1190-2154', pressure test casing to 300 psi, test good. Drill cement retainer at 2400', circulate hole clean. Drill cement from 3015-1060', circulate hole clean. Drill cement from 3060-3950', circulate hole clean, pressure test casing to 300 psi, test good. Drill out retainer at 3950'. Drill cement from 3950-4000'. Tag last retainer at 4115' (will not drill), circulate hole clean.

Run a cement bond log from 4115-2000', circulate hole clean. TOC at approx. 2120'. Run Gyro to 3966'/orient whipstock. Mill 7" casing window from 3989' to 3994', circulate hole clean. Drill to 6307'. Log well, tag at 6250'. Run 4.5" 11.6# C-75 LT&C casing. Landed at 6307' KB. Circulate and condition for cement. Cement with 350 sx of 50/50 poz Class B with 2% gel. ND BOP, set slip at 60K, cut off casing. Nipple up wellhead. RDMO 12:00 hrs on 12/19/95.

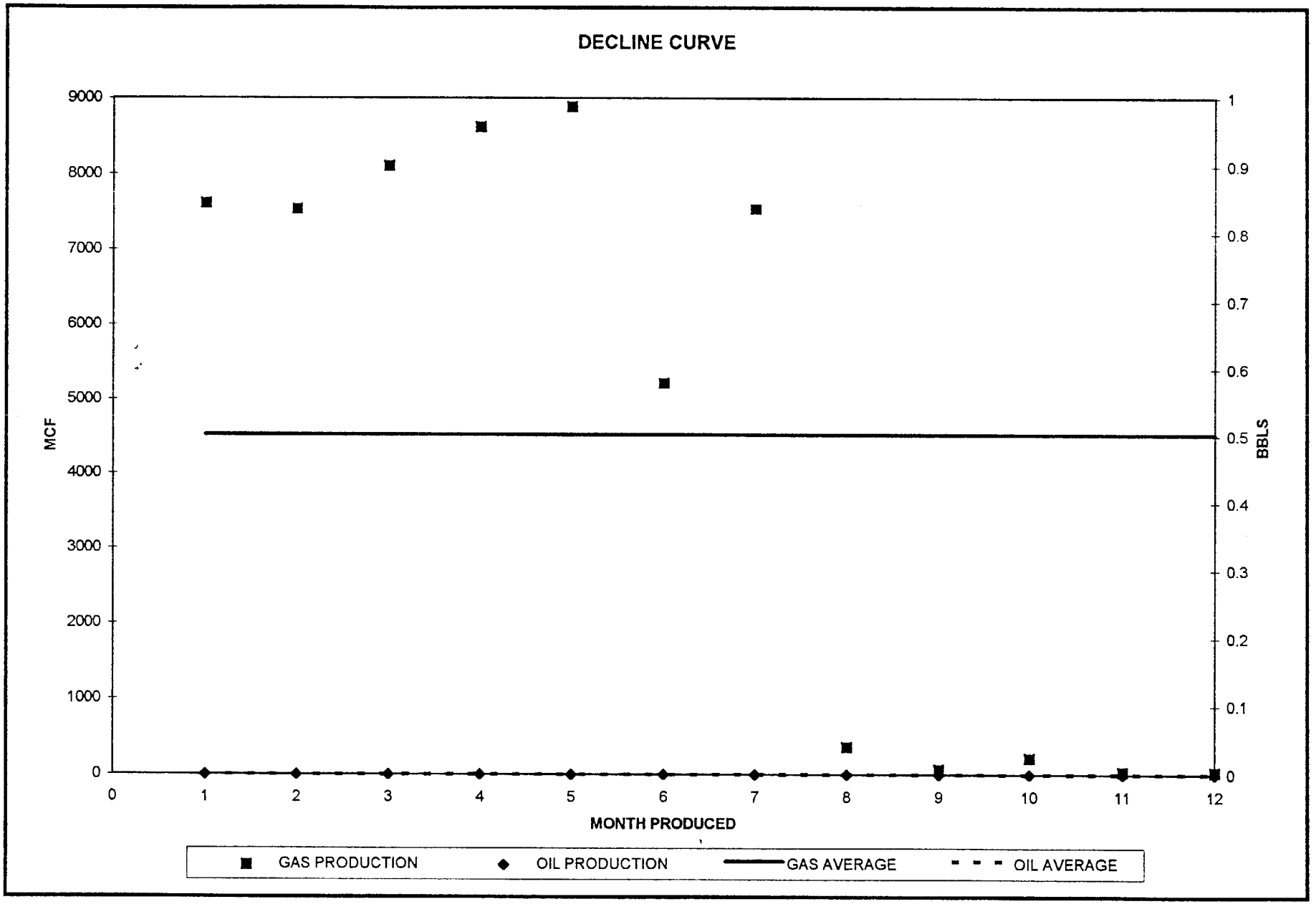
Run GR/CCL/ CBL log. TOC at approx 2090'. MIRUSU 1/15/96. Tag at 6259', circulate bottoms up with 40 bbls. Perf Pt. Lookout at: 6024' with 2 shots, 6054' with 1 shot, 6072' with 6 shots, 6094' with 1 shot, 6121' with 1 shot, 6140' with 6 shots, 6171' with 1 shots, 6187' with 1 shots, .340" diameter, 19 total shots, 3.125" gun, 12.5 gms. Run pinpoint injection packer and breakdown each perf zone. Frac 6024-6187' with 100,743 lbs 16/30 Arizona sand, 70% quality, 954,974 scf N2, max. pressure 3778 psi, max. rate 50.3 bpm.

Tag fill at 6032'. Set CIBP at 6015'. Pressure test to 3000 psi, ok. Perf Menefee at: 5580', 5635', 5648', 5680', 5730', 5796', 5811', 5858', 5954', 5973', 6000' with 2 JSPF, .340" diameter, 22 total shots, 3.125" gun, 12.5 gms. Well started flowing. Acidize 5580-6000' with 14 bbls hydrochloric acid, max. pressure 3868 psi, 7 bpm. Frac 5580-6000' with 89,700 lbs 16/30 Arizona sand, 969,381 scf, 70% quality, max. pressure 4290 psi, 51.7 bpm. Set CIBP at 5550'. Pressure test to 3000 psi, ok. Run pinpoint injection packer and breakdown each perf zone.

Perf Cliffhouse at: 5514' with 1 shot, 5498' with 4 shots, 5474' with 4 shots, 5440' with 4 shots, 5418' with 2 shots, 5407' with 1 shots, 5372' with 1 shot, 5341' with 1 shot, 5020' with 2 shots, .340" diameter, 20 total shots, 3.125" gun, 12.5 gms. Frac 5020-5514' with 100,800 lbs 16/30 Arizona sand; 1,116,040 scf, 70% quality, max. pressure 5339 psi, max. rate 48.4 bpm. Clean out 5805-6255'. Flowing well. Cleanout 6207-6255'. Land tubing at 6140'. RDMOSU 1/29/96.

WELLNAME	WELLNO	POOL	FLAC	API	LOCATION	MONTH	OIL	GAS
BARRETT I.S	# 2	Blanco Mesaverde		3004510641	B 19 31N 9W	11/90	0	7612
						12/90	0	7534
						01/91	0	8105
						02/91	0	8618
						03/91	0	8887
						04/91	0	5215
						05/91	0	7543
						06/91	0	365
						07/91	0	69
						12/92	0	218
						08/94	0	35
						09/94	0	31
					12-month average - Projected Trend		0	4519

BARRETT LS # 2


DECLINE CURVE
MCF
BBLS
MONTH PRODUCED
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
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1
2
3
4
5
6
7
8
9
10
11
12
GAS PRODUCTION
OIL PRODUCTION
GAS AVERAGE
OIL AVERAGE